

U.S.S.N. 10/645,816

Cantor et al.

PRELIMINARY AMENDMENT

Amendments to th Specification:

Please replace the paragraph on page 16, lines 9-24, with the following:

As used herein, the term "mass-matched nucleotides" refers to a set of nucleotide analogs wherein each analog is of identical mass to each of the other analogs. For example, analogs of dA, dG, dC and dT can form a mass-matched nucleotide set, when each analog is selected to have the same molecular weight as the others in the set. Mass-matched nucleotide sets can be identified by selecting chemically modified derivatives of natural bases or by the use of a universal base analog such as deoxyinosine or 5-nitroindole and 3-nitropyrrole (5-nitroindole and ~~3-intropyrrole~~ 3-nitropyrrole can be in the dideoxy form) which can form base pairs with more than one of the natural bases. Others include, 3-methyl 7-propynyl isocarbostyryl, 5-methyl isocarbostyryl, and 3-methyl isocarbostyryl. As a result, oligonucleotides that contain such bases differ in molecular weight only as a function of length thereof. Furthermore, incorporation of a single nucleotide(s) that is (are) not in the set renders such the oligonucleotide(s) readily identifiable by mass, particularly by spectrometric analysis.